

CLAIMS

1. Liquid crystal display screen, comprising a first and a second transparent plate (3, 4), joined together and between which is contained liquid crystal (2), the first plate (3) being mechanically reinforced by an at least partially transparent third plate (7), characterized in that the first and the third plates (3, 7) are secured together by way of an adhesive element (11) comprising at least one double-sided adhesive film (12, 13, 14, 16).
2. Display screen according to Claim 1, characterized in that the adhesive element (11) comprises at least one sandwich-type assembly made of two double-sided adhesive films (13, 14) separated by a layer (15) of a different material.
3. Display screen according to Claim 2, characterized in that the two double-sided adhesive films (13, 14) have identical thicknesses (e1, e2).
4. Display screen according to Claim 2, characterized in that the two double-sided adhesive films (13, 14) have different thicknesses (e1, e2).
5. Display screen according to any one of Claims 2 or 3 or 4, characterized in that the layer (15) is made of a material having a firmer structure than that exhibited by the double-sided adhesive films (13, 14).
6. Display screen according to one of the preceding claims, characterized in that the adhesive element (11) is laid out between the first and the third plates (3, 7) around a zone called an image zone (Zi).

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7. Display screen according to Claim 6, characterized in that the layer (15) of different material is made of glass fibre.
- 5 8. Display screen according to either of Claims 6 and 7, characterized in that the layer (15) of different material is opaque to light.
- 10 9. Display screen according to any one of Claims 1 or 2 or 3 or 4 or 5, characterized in that the adhesive element (11) is laid out between the first and the third plates (3, 7) over appreciably the entire available surface area.
- 15 10. Display screen according to Claim 9, characterized in that the layer (15) of different material is transparent to light.
- 20 11. Display screen according to one of the preceding claims, characterized in that at least one double-sided adhesive film (12, 13, 14, 16) is of the type formed solely by a mass of adhesive substance.
- 25 12. Display screen according to any one of Claims 1 to 10, characterized in that at least one double-sided adhesive film (12, 13, 14, 16) is of the type comprising a supporting film, each face of which is coated with an adhesive substance.

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ABSTRACT

LIQUID CRYSTAL DISPLAY SCREEN WITH REINFORCED STRUCTURE

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The present invention relates to liquid crystal image display screens, and particularly to those of the type in which a first transparent plate (3) is stiffened with the aid of a so-called reinforcing plate (7).

In accordance with the invention, the first plate (3) and the reinforcing plate (7) are secured together by way of an adhesive element (11) comprising at least one double-sided adhesive film (12, 13, 14, 16), which can be deposited at the periphery around the image zone.

The use of such an adhesive element (11) is simple and it avoids having to employ a cumbersome process with uncertain results, as is the case in the prior art with the use of a cement.

The invention applies in particular to liquid crystal display screens intended to equip aircraft, helicopters, etc.

Figure 2.

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